REC'D 2 8 AUG 2001

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

PCT

(PCT Article 36 and Rule 70)

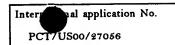
pplicant's or agent's file reference	FOR FURTHER ACTION		ation of Transmittal of International	
PCT/US00/20522		Prelimina: 	(416)	
nternational application No.	International filing date (day/1	month/year)	Priority date (day/month/year)	
PCT/US00/27056 29 SEPTEMBER 2000			04 OCTOBER 1999	
nternational Patent Classification (IPC Please See Supplemental Sheet.) or national classification and H	PC		
Applicant MERCK & CO. INC.				
This international prelimit Examining Authority and it	nary examination report has is transmitted to the applicant	been prepar according to	red by this International Preliminary Article 36.	
2. This REPORT consists of a total of sheets.				
This report is also according to the second term amended and are second (see Rule 70.16 and Second terms).	mpanied by ANNEXES, i.e., sho the basis for this report and/or sl tion 607 of the Administrative		cription, claims and/or drawings which have ng rectifications made before this Authority.	
These annexes consist of a t				
3. This report contains indication	ons relating to the following i	tems:		
I X Basis of the rep	port			
II Priority		novelty inver	tive step or industrial applicability	
III X Non-establishm	ient of report with regard to i	ioverty, inven	tive step or industrial applicability	
IV Lack of unity				
V X Reasoned statem citations and exp	ent under Article 35(2) with replanations supporting such state	gard to novelt ment	y, inventive step or industrial applicability;	
VI Certain documen	ts cited			
VII Certain defects in	n the international application			
<u> </u>	ions on the international applic	ation		
VIII Certain observat	TI TI			
·				
		ate of complet	ion of this report	
Date of submission of the demand		are or complet	ion or onto refere	
10 APRIL 2001		28 JULY 20	01	
			- A - A - A - A - A - A - A - A - A - A	
Name and mailing address of the IP	ER/ 05	uthorized offic	Tally olem t	
Commissioner of Patents and Tr. Box PCT	BURCITION 72	S. DEVI,	I.D.	
Washington, D.C. 20231 Facsimile No. (703) 305-3230	т	elephone No.	(703) 308-0196	
Facsimile No. (703) 305-3230				

I.	Ba	sis of	the report				
,	W/#L	mmed	to the elements of the intern	ational application	on:*		
1.			ternational application as				
	X		escription:				
	X		1-12				, as originally filed
		pages	NONE				, filed with the demand
		pages	NONE		, filed with the l	etter of	
		Pubos					
	\mathbf{x}	the cl					an ariginally filed
		pages	27.627.6			anthor with any sta	, as originally filed tement) under Article 19
			1101T		, as amended (to	igetier with any sta	, filed with the demand
			NONE	filed v	gith the letter of		, 11100 1111111111111111111111111111111
		pages	NONE	, Inted w	Au ule letter or		
	x	the dr	rawings:				
			1			<u> </u>	, as originally filed
			NONE				filed with the demand
		pages	NONE		, filed with the le	tter of	
	X		quence listing part of the	description:			
		pages	1-2				, as originally filed
		pages	NONE		m 1 1 1 1 1		, filed with the demand
		pages	NONE NONE		, filed with the le	tter of	
		the la	_	f the internation	onal application (un	nder Rule 48.3(b)).	nination (under Rules 55.2 and
3	3. W	ith rega	•	or amino acided	l sequence disclosed basis of the sequence	in the international e listing:	application, the international
	X	conta	ined in the international	application in	n printed form.		
	v		together with the interna			adable form.	
			shed subsequently to this				•
		J	shed subsequently to this			form.	
		l l The s	•	ently furnished	d written sequence li		yond the disclosure in the
		The s				nn is identical to the	writen sequence listing has
	4. X	1	amendments have result	ed in the cano	cellation of:		
		X	the description, pages_	NONE			
		X	the claims, Nos.	NONE			
		X	the drawings, sheets/f	NONE			
	5.	This	report has been drawn as i	f (some of) the	amendments had not	been made, since they	have been considered to go
	in	bey	ond the disclosure as filed, out sheets which have been fi port as "originally filed" a	as indicated in	the Supplemental Box	k (Rule 70.2(c)).** conse to an invitation un	der Article 14 are referred to in amendments (Rules 70.16
1			romant chast containing S	uch amandment	e must he referred to	under item 1 and an	nexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability			
1. The q	questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be trially applicable have not been and will not be examined in respect of:		
	the entire international application.		
X	claims Nos. <u>5, 10 AND 11-16</u>		
	because:		
	the said international application, or the said claim Nos. relate to the following subject matter which does not require international preliminary examination (specify).		
	the description, claims or drawings (indicate particular elements below) or said claims Nos are so		
	unclear that no meaningful opinion could be formed (specify).		
	the claims, or said claims Nos are so inadequately supported by the description that no meaningful opinion could be formed.		
X	no international search report has been established for said claims Nos. <u>5, 10 AND 11-16</u> .		
	eaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid ence listing to comply with the standard provided for in Annex C of the Administrative Instructions:		
	the written form has not been furnished or does not comply with the standard. the computer readable form has not been furnished or does not comply with the standard.		

INTERNATIONAL PRELIMINARY EXAMINATION REPORT



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statement			
Novelty (N)	Claims	NONE	YE
Noveley (N)	Claims	1-4 and 6-9	NO
	Claims	NONE	YE
Inventive Step (IS)	Claims	1-4 and 6-9	NO
·			
To duratical Applicability (TA)	Claims	1-4 and 6-9	YE
Industrial Applicability (IA)	Claims	NONE	NO
NEW CITATIONS			
NONE			
•			
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

anal application No. JS00/27056

C	.1	Dow
Supi	olemental	DOX

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

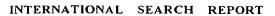
The International Patent Classification (IPC) and/or the National classification are as listed below:
IPC(7): C07H 21/04; C12P 21/06, C12N 15/09, 15/00. and US Cl.: 536/23.1, 23.9; 435/71.1, 69.1, 320.1, 69.3.

INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/27056

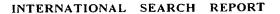
A. CLASSIFICATION OF SUBJECT MATTER					
US CL:536/23.1, 23.9; 435/71.1, 69.1, 320.1, 69.3. According to International Patent Classification (IPC) or to both national classification and IPC					
B. FIELDS SEARCHED					
Minimum do	Minimum documentation searched (classification system followed by classification symbols)				
U.S. : 5	U.S.: 536/23.1, 23.9; 435/71.1, 69.1, 320.1, 69.3.				
Documentati	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic d	ata base consulted during the international search (na	me of data base and	, where practicable	e, search terms used)	
MEDLINE, DIALOG, EMBASE, BIOSIS, WEST, SEQUENCE databases. SEQ ID NO: 1, MraY, Pseudomonas, inventors' name.					
C. DOC	UMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where ap	propriate, of the rele	evant passages	Relevant to claim No.	
X	WO 96/40893 A1 (ASTRA AKTIEBOLA entire document.	1G) 19 Decem	ber 1996, see	1-4 and 6-9	
X, P	WO 99/61050 A1 (EL-SHERBEINI) 0 document.	2 December 19	99, see entire	1-4 and 6-9	
A	EP 0 897 007 A2 (SMITKLINE BEE February 1999, see entire document.	CHAM CORPO	PRATION) 17	1-4 and 6-9	
Furth	ner documents are listed in the continuation of Box C	See pate	ent family annex.		
1	Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand				
	"A" document defining the general state of the art which is not considered to be of particular relevance "A" document defining the general state of the art which is not considered the principle or theory underlying the invention			e invention	
	ther document published on or after the international filing date	considered no	ovel or cannot be consid	ne claimed invention cannot be ered to involve an inventive step	
cit	cument which may throw doubts on priority claim(s) or which is ed to establish the publication date of another citation or other ecial reason (as specified)	"Y" document of		ne claimed invention cannot be	
	cument referring to an oral disclosure, use, exhibition or other cans	combined wi		e step when the document is th documents, such combination the art	
	cument published prior to the international filing date but later than	"&" document me	ember of the same pater	nt family	
Date of the	actual completion of the international search	Date of mailing of	the international se	earch report	
28 NOVE	EMBER 2000	2	9 DEC 200)Q	
	Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Authorized officer			DMC.	
Box PCT	n, D.C. 20231	S. DEVI, Ph.D	DEM	A MAE COLLINS	
Facsimile N		Telephone No.	703) 308 (703)	EGAL SPECIALIST	
Form PCT/	IGA 1010 /	I	LEUDINU	LUDT LENIER 1600	

Form PCT/ISA/210 (second sheet) (July 1998)*



International application No. PCT/US00/27056

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
Please See Extra Sheet.
As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. X No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-4 and 6-9
Remark on Protest The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.



International application No. PCT/US00/27056

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claims 1-4 and 6-9, drawn to an isolated polynucleotide encoding a polypeptide having SEQ ID NO: 2, or that is complementary to the polynucleotide or that hybridizes with the polynucleotide, a cDNA, an expression vector and a host cell comprising the same.

Group II, claims 5 and 10, drawn to a process for expressing a MraY protein of Pseudomonas aeruginosa.

Group III, claims 11-14, a probe and a primer for the detection of polynucleotides encoding *Pseudomonas aeruginosa* MraY protein.

Group IV, claims 15 and 16, drawn to an isolated polypeptide comprising an amino acid sequence of SEQ ID NO: 2 and a cellular extract comprising the same.

The special technical feature of Invention I is an isolated polynucleotide that is complementary to the polynucleotide or that hybridizes with the polynucleotide of SEQ ID NO: 1. Invention II is drawn to a process for expressing a MraY protein of Ps. aeruginosa using the product of invention I. Although the first product of the invention and method of using the product is a permitted combination under PCT Rule 13.2, in the instant case, the special technical feature is already disclosed in the art, for instance, WO 98/18931 and therefore is not a unifying feature. Inventions III and are drawn to the second and third products respectively. Clearly, the special technical feature of inventions I through IV is not a unifying feature.

P. ENT COOPERATION TREA

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

ΙTο

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202

ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

	Date of mailing (day/month/year)
	30 July 2001 (30.07.01)
_	

International application No. PCT/US00/27056

International filing date (day/month/year) 29 September 2000 (29.09.00) Applicant's or agent's file reference PCT 20522

Priority date (day/month/year) 04 October 1999 (04.10.99)

Applicant

EL-SHERBEINI, Mohamed et al

1.	The designated Office is hereby notified of its election made:
	X in the demand filed with the International Preliminary Examining Authority on:
	10 April 2001 (10.04.01)
	in a notice effecting later election filed with the International Bureau on:
2.	The election X was
	was not
	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).
•	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer

Juan Cruz

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38